WELTORGANISATION FUE Integnations INTERNATIONALE ANMELDUNG VERÖFFEN



9606923A1

(51) Internationale Patentklassifikation 6 :

C12C 11/07, C12H 1/00, C12C 11/09

A1

(11) Internationale Veröffentlichungsnummer:

WO 96/06923

(43) Internationales Veröffentlichungsdatum:

7. März 1996 (07.03.96)

(21) Internationales Aktenzeichen:

PCT/EP95/02759

(22) Internationales Anmeldedatum:

14. Juli 1995 (14.07.95)

(30) Prioritätsdaten:

P 44 30 905.8

31. August 1994 (31.08.94)

INTERNATIONALE ZUSAMMENARBEIT AUF

DE

(81) Bestimmungsstaaten: AU, BR, CA, CN, CZ, FI, JP, NZ, SK, US, europäisches Patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Veröffentlicht

Mit internationalem Recherchenbericht.

(71) Anmelder (für alle Bestimmungsstaaten ausser US): MET-ALLGESELLSCHAFT **AKTIENGESELLSCHAFT** [DE/DE]; Reuterweg 14, D-60323 Frankfurt am Main (DE).

(72) Erfinder; und

(75) Erfinder/Anmelder (nur für US): BODMER, Roland [DE/DE]; Castellring 109a, D-61130 Nidderau (DE). BÖNSCH, Rudolf [DE/DE]; Lindenweg 20, D-55299 Nackenheim (DE). EICHELSBACHER, Michael [DE/DE]; Zukunftstrasse 36, D-55130 Mainz (DE). MITSCHKE, Peter [DE/DE]; Tannenstrasse 6, D-63477 Maintal (DE). M SEIFFERT, Thorsten [DE/DE]; Bahnhofstrasse 116, U D-61267 Neu-Anspach (DE).

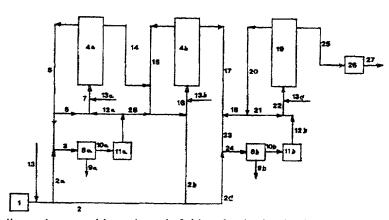
(74) Gemeinsamer Vertreter: METALLGESELLSCHAFT AK-TIENGESELLSCHAFT; Reuterweg 14, D-60323 Frankfurt am Main (DE).

(54) Title: PROCESS FOR THE CONTINUOUS PRODUCTION OF BEER

(54) Bezeichnung: VERFAHREN ZUR KONTINUIERLICHEN HERSTELLUNG VON BIER

(57) Abstract

The description relates to a process for the continuous production of beer in which the wort with an oxygen content of 0.5 to 3.0 mg per litre is continuously fed to a fermenter in the form of a loop reactor operating at a temperature of 6 to 25 °C and a pressure of 1.5 to 2 bar, in which the wort spends an average time of 4 to 40 hours, there is a biocatalyst containing a biologically active yeast and a partial stream of the wort is continuously fed into the circuit. In the process, the entire cycle of the fermenter is conducted continuously in a maturing fermenter designed as a loop reactor into which 1 to 8 % of the wort taken to the fermenter is also continuously introduced, operating at a temperature of 10 to 20 °C, in which the medium to be matured spends an average of 4 to 30 hours, running with a biocatalyst which is also



fed into the fermenter and in which a partial flow of the medium to be matured is continuously fed into the circuit, whereby the free yeast cells are separated from the partial flow of the medium to be matured in the circuit and the partial flow from which the yeast is removed is heated to 60 to 70 °C and then cooled before being fed once more into the maturing fermenter.